UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,647	06/05/2007	Frank Brady	PH03104	3754

36335 7590 05/02/2011

GE HEALTHCARE, INC.
IP DEPARTMENT 101 CARNEGIE CENTER
PRINCETON, NJ 08540-6231

EXAMINER	
DICKINSON, PAUL W	

ART UNIT	PAPER NUMBER
1618	

NOTIFICATION DATE	DELIVERY MODE
05/02/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

MDUSPatents@ge.com
Lori.allaire@ge.com

Office Action Summary	Application No.	Applicant(s)	
	10/583,647	BRADY ET AL.	
	Examiner	Art Unit	
	PAUL DICKINSON	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/15/2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *1-18 and 24-27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/20/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II in the reply filed on 2/15/2011 is acknowledged. The traversal is on the ground(s) that '782 discloses a method of producing a monolithic support material for use in chromatographic separation. Such a method completely fills the reaction vessel with the polymer and not simply coating the internal surface of the reaction vessel. Thus, the surface of the vessel of '782 is not coated as required by the instant claims.

This is not found persuasive because although the internal portion of the HPLC column of '782 is completely filled with the polymer substrate, the polymer substrate is in full contact with the internal surface of the column, and thus it coats the internal surface of the column. For the sake of argument, if the polymer substrate in the HPLC column of '782 did not constitute an internal coating, this feature of the instant invention is still not novel. US 5262031 discloses bare fused silica capillaries (a device comprising a reaction vessel) with an internal diameter of 0.05 mm (less than about 2 mm) wherein the internal surface is coated with polymethylsiloxane (a polymer substrate) for electrophoresis (a chemical process) (Example 2). As US 5262031 anticipates the common technical feature of the instant invention, this cannot be a special technical feature. Accordingly, unity of invention is broken between Groups I, II, and III and the restriction requirement is still deemed proper. The restriction requirement is maintained.

Claim Objections

Claim 23 is objected to because of the following informalities: The claim is missing a period. Appropriate correction is required.

Claim Rejections - 35 USC § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase “less than about 2 mm” is indefinite. It is unclear what ranges are encompassed by this phrase. “Less than” is a maximum that encompasses all possible values below 2 mm, whereas “about 2 mm” encompasses possible values both above and below 2 mm.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5262031 ('031). '031 discloses bare fused silica capillaries (a device comprising a reaction vessel) with an internal diameter of 0.05 mm (less than about 2 mm) wherein the internal surface is coated with a polymethylsiloxane polymer (a polymer substrate) for electrophoresis (a chemical process) (Example 2). This satisfies instant claim 19. Regarding instant claim 20, although '031 does not carry out a radiochemical process using its polymethylsiloxane coated capillary tubes, this does not distinguish claim 20 from '031. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison, 69 USPQ 138.* In the instant case, the polymethylsiloxane coated capillaries of '031 are structurally identical to the instant claims and thus meets the limitation "adapted for carrying out a solid phase radiochemical process." Regarding claim 23, the recitation "two or more devices" is a broad recitation. The single capillary tube of '031 could be thought of as two halves (two devices), one half (one device) immersed in solution 36 of Fig. 1, the other half (the other device) immersed in solution 38 of Fig. 1. The two halves are fluidly interconnected. This meets the structural requirements of claim 23.

Claims 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by US 20040044100 ('100). '100 discloses a capillary tube as used for capillary electrophoresis (a device comprising a reaction vessel) with an internal diameter of 50 microns (less than about 2 mm) wherein the internal surface is coated with an enantioselective polyelectrolyte complex film (a polymer substrate) for electrochromatographic separation (a chemical process) (paragraphs 29, 59, 86-87). This satisfies instant claim 19. Regarding instant claim 20, although '100 does not carry out a radiochemical process using its polymethylsiloxane coated capillary tubes, this does not distinguish claim 20 from '100. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison, 69 USPQ 138.* In the instant case, the polymer coated capillaries of '100 are structurally identical to the instant claims and thus meets the limitation "adapted for carrying out a solid phase radiochemical process."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20040044100 ('100). The relevant portions of '100 are given above. Additionally, '100 discloses that ROMP polymers may be used in the polyelectrolyte complex film (paragraph 47).

'100 fails to disclose a specific example where the internal surface of a capillary tube is coated with a polyelectrolyte complex film wherein the polyelectrolyte film includes a ROMP polymer.

It would have been obvious to one of ordinary skill in the art at the time the instant invention was made to prepare a capillary tube coated with a polyelectrolyte complex film wherein the polyelectrolyte complex film includes a ROMP polymer. The rationale for this is that '100 teaches that ROMP polymers may be used in the polyelectrolyte complex film. Therefore it would be obvious to incorporate a ROMP polymer in the polyelectrolyte complex film, thus affording a capillary tube for electrochromatographic separations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL DICKINSON whose telephone number is (571)270-3499. The examiner can normally be reached on Mon-Thurs 9:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAUL DICKINSON/
Examiner, Art Unit 1618

April 22, 2011